

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNIFIED PATENTS, LLC,
Petitioner,

v.

III HOLDINGS 12, LLC,
Patent Owner.

IPR2022-00136
Patent 8,271,980 B2

Before LYNNE E. PETTIGREW, BRENT M. DOUGAL and
SCOTT RAEVSKY, *Administrative Patent Judges*.

DOUGAL, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Petitioner, Unified Patents LLC, requests that we institute an *inter partes* review of claims 1–5, 14, and 15 (“challenged claims”) of U.S. Patent 8,271,980 B2 (Ex. 1001, “’980 patent”). Paper 1 (“Petition” or “Pet.”). Patent Owner, III Holdings 12, LLC, argues that Petitioner’s request is deficient and should not be granted. Paper 7 (“Preliminary Response” or “Prelim. Resp.”). Petitioner also filed a Reply (Paper 8), and Patent Owner filed a Sur-reply (Paper 9).

Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we deny the Petition and decline to institute an *inter partes* review.

A. Related Proceedings

There are no identified related proceedings. Pet. 1; Paper 4, 1.

B. The ’980 Patent

The ’980 patent is titled “System and Method of Providing System Jobs Within a Compute Environment.” Ex. 1001, code (54). The patent relates to “managing resources in the context of a compute environment which may be defined as a grid or cluster of computers.” *Id.* at 1:22–24. The patent describes “using system jobs for performing actions outside the constraints of batch compute jobs” and “using entities that are called system jobs that can include triggered events that are outside of events managed by a scheduler.” *Id.* at 3:6–7, 3:16–18.

A batch or compute job, though “unable to do anything outside of the constrained space for the job,” does have “the ability to have a number of steps in which each step may have dependencies on other steps, successful

or failed completion of previous steps or similar relationships.” *Id.* at 2:38–41, 45–46. It is further taught that “batch [compute] jobs are limited to running non-root applications or executables on that cluster or on compute nodes that are allocated to it.” *Id.* at 2:42–44.

In contrast, system jobs are taught to be able to perform tasks that are more typically “performed by a scheduler or other management software.” *Id.* at 3:9–11. “[S]ystem jobs . . . can include triggered events that are outside of events managed by a scheduler,” and can also include “state, retry capability, steps, time steps and dependencies.” *Id.* at 3:14–19.

In one example, the ’980 patent modifies a compute environment by associating a system job to a queueable object, such as a batch compute job or job reservation. *Id.* at 3:21–26. Then the system job can be triggered by an event, “such as ten minutes prior to completion of the batch compute job,” or it can be “dependent on other actions associated with other system jobs.” *Id.* at 3:26–29.

Another example of a system job is performing maintenance on a compute environment. *Id.* at 3:30–31. Not only is the maintenance performed, but the system job can also include the steps of performing a health check on the compute environment, such as a node, and reporting an unsuccessful update, for example through sending an email. *Id.* at 3:31–41.

System jobs can have one or more steps and each step has one or more tasks, “where each task modifies the internal or external environment of the compute environment or the job.” *Id.* at 4:41–46. These tasks can include the following internal or external changes:

Internal environment changes include, but are not limited to: creating reservations, setting variables, modifying credentials, policies, thresholds, priorities, etc.

Id. at 4:46–48.

External changes include modifying resources, database settings, peer interfaces, external credentials, launching arbitrary scripts, launching applications, provisioning resources, etc.

Id. at 4:48–51. In addition to these capabilities, the '980 patent also states that system jobs “allow at least one of” the following “differentiators”:

(1) integration of environmental data into job flow decisions; (2) creation of arbitrary probes, continuous task retry, etc.; (3) integration of environment data into task execution; (4) dynamic resource reallocation based on results of previous tasks; (5) integration of compute tasks, tasks involving non-compute resources (i.e. data bases, provisioning systems, data managers, etc), and changes to compute environment meta data (such as policies, thresholds, priorities, credential configuration, etc); (6) access to live global cluster and job centric information, information; (7) envelopment of traditional compute tasks in higher layer wrappers; (8) allowing greater environment management; (8) synchronization of tasks managing unrelated resources and resource types; (9) co-allocation of resources and requirements, scheduling, reservation; (10) guarantees of completion for loose aggregations of request types application of tight and loose time constraints on requests (including periodic window, time frame proximity, and deadline based constraints); and (11) optimization of loose aggregations of requests.

Id. at 4:66–5:19.

C. Challenged Claims

Petitioner challenges claims 1–5, 14, and 15 of the '980 patent. Pet. 1. Claims 1 and 14 are independent. Claim 1 is representative and is reproduced below:

1. A method for managing a multi-node compute environment, the method comprising:

associating a system job to a compute job that is scheduled according to a reservation to consume resources in a multi-node compute environment under common management; and

performing an action on a resource within the multi-node compute environment by processing the system job, the performed action being associated with actions other than (1) establishing any kind of reservation for resources to be consumed by the compute job and (2) directly dispatching and executing the compute job in the multi-node compute environment.

Ex. 1001, 10:18–30.

D. The Asserted Grounds

Petitioner asserts the following grounds of unpatentability (Pet. 5), supported by the declaration of Dr. Andrew Wolfe, Ph.D. (Ex. 1002):

Claim(s) Challenged	35 U.S.C.	References
1–5, 14, 15	§ 102 ¹	Shawver ²
1–5, 14, 15	§ 103	Shawver
1–5, 14, 15	§ 103	Shawver, Nguyen ³
1–5, 14, 15	§ 102	Nagato ⁴
1–5, 14, 15	§ 103	Nagato
1–5, 14, 15	§ 103	Nagato, Tran ⁵

II. ANALYSIS

A. Legal Standards

Petitioner bears the burden to demonstrate unpatentability. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir.

¹ Because the challenged claims appear to have an effective filing date before March 16, 2013, we apply the version of 35 U.S.C. §§ 102–103 in effect before the adoption of the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 285–88 (2011).

² U.S. Patent 8,726,278 B1, issued May 13, 2014 (Ex. 1004, “Shawver”).

³ European Patent Application Publication EP 0859314 A2, published Aug. 19, 1998 (Ex. 1006, “Nguyen”).

⁴ U.S. Patent Pub. 2002/0032716 A1, published Mar. 14, 2002 (Ex. 1005, “Nagato”).

⁵ U.S. Patent 7,685,602 B1, issued Mar. 23, 2010 (Ex. 1007, “Tran”).

2015). At this preliminary stage, we determine whether the information presented in the Petition shows a reasonable likelihood that Petitioner would prevail in establishing that at least one of the challenged claims would have been obvious over the proposed combinations of prior art. *See* 35 U.S.C. § 314(a).

“A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. Inc. v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987). Moreover, “[b]ecause the hallmark of anticipation is prior invention, the prior art reference—in order to anticipate under 35 U.S.C. § 102—must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements ‘arranged as in the claim.’” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008).

A claim is unpatentable as obvious if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting 35 U.S.C. § 103(a)). We resolve the question of obviousness based on underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the prior art and the claims; (3) the level of skill in the art; and (4) when in evidence, objective indicia of nonobviousness. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

We apply these principles to the Petition’s challenges.

B. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art “would have had at least a Bachelor’s degree in Computer Science, Computer Engineering, Network Engineering, or Electrical Engineering, and two to three years of relevant industry experience or the equivalent thereof.” Pet. 15–16 (citing Ex. 1002 ¶¶ 61–66). Patent Owner does not dispute Petitioner’s definition of one of ordinary skill in the art. Prelim. Resp. 7.

We determine that Petitioner’s proposal is consistent with the technology described in the Specification and the cited prior art. We therefore adopt Petitioner’s definition of the level of skill for the purposes of this Decision.

C. Claim Construction

In *inter partes* review, we construe claims using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b) (2021).

In the Petition, Petitioner proposes that no claim constructions are necessary. Pet. 16. However, Patent Owner argues that the terms “system job” and “compute job,” in both claims 1 and 14, require construction. Prelim. Resp. 6. At this stage we determine it is not necessary to construe any claim term. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (explaining that construction is needed only for terms that are in dispute, and only as necessary to resolve the controversy).

D. 35 U.S.C. §§ 102/103 – Shawver

Petitioner contends that claims 1–5, 14, and 15 of the ’980 patent are unpatentable as anticipated by or obvious over Shawver. Pet. 4–5, 16–38. For the reasons that follow, we are not persuaded that the evidence, including Dr. Wolfe’s testimony, establishes a reasonable likelihood of prevailing on the anticipation and obviousness grounds based on Shawver.

1. Shawver (Ex. 1004)

Shawver is titled “Methods and Systems for Registering Callbacks and Distributing Tasks to Technical Computing Works.” Ex. 1004, code (54). Shawver discusses the mathematical computation software MATLAB (*see generally id.* at 1:24–67) and notes that “[w]hen a computation becomes so large and complex that it cannot be completed in a reasonable amount of time on a single computer, a solution to decrease the computation time is needed” (*id.* at 2:4–7).

One method described in Shawver to accomplish this is to use a computing client 250 to “declare a job and associate the tasks with the job.” *Id.* at 13:54–58. Shawver describes the computing client 250 submitting the job to job manager 265, then “[t]he job manager 265 obtain[ing] the tasks from the job and provid[ing] the tasks to the automatic task distribution mechanism 260 for technical computing workers 270A-270N to take and compute results.” *Id.* at 13:63–66. Shawver further describes “[t]he job manager 265 then obtains the set of results for the completed job . . . and provides the results of each of the tasks to the technical computing client 250.” *Id.* at 14:15–18.

Figure 3C, reproduced below, shows a block diagram of the batch automatic distribution mode for this exemplary embodiment. *Id.* at 4:41–42.

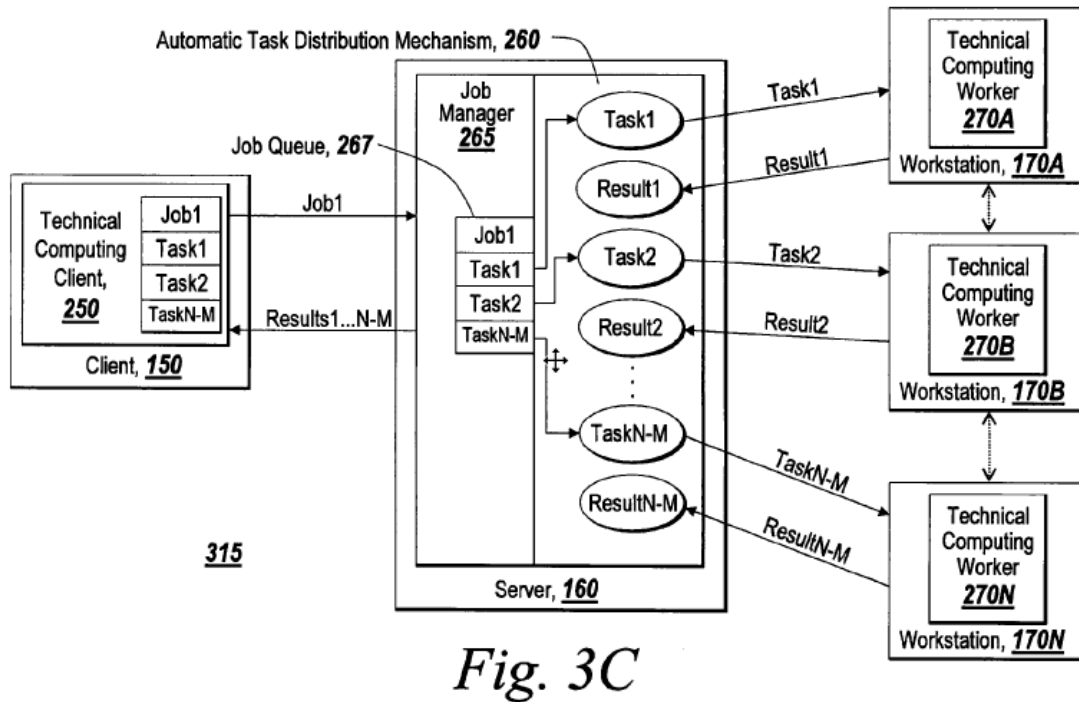


Fig. 3C

Figure 3C shows the batch mode of automated task distribution embodied in system 315, including automatic task distribution mechanism 260, job manager 265, technical computing workers 270A–270N, and technical computing client 250. *Id.* at 13:29–30, 13:54–14:58.

2. Claims 1–5, 14, 15

Both independent claims 1 and 14 require “a compute job that is scheduled according to a reservation.” Claims 2–5 and 15 also include this limitation based on their dependency from either claim 1 or 14. Petitioner argues that the above limitation is taught by Shawver Figure 3C, depicted above in the prior section, and argues that “Server 160 ‘determin[es] a [W]orkstation 170 [‘node’] to assign’ a ‘Job’ and its constituent ‘task[s]’ (‘compute job’) (‘schedule[s] according to a reservation’).” Pet. 22 (citing Ex. 1004, 7:31–34, Fig. 3C).

Patent Owner argues that Petitioner’s single sentence addressing this limitation “does not include any explanation of how *Shawver*’s disclosure of

assigning a job to a workstation constitutes ‘schedule[ing]’ such a job, let alone scheduling a job ‘according to a reservation.’” Prelim. Resp. 18–19.

We agree that Petitioner’s assertion that “Shawver teaches assigning a job” does not sufficiently address the noted claim limitation. Petitioner provides no explanation for how Shawver’s “assigning a job” teaches or suggests the claims’ “scheduled according to a reservation.” Neither the Petition, nor Petitioner’s declarant, assert that one of ordinary skill in the art would have understood assigning a compute job to a workstation to teach or suggest as “a compute job that is scheduled according to a reservation.” *See* Pet. 22; Ex. 1002 ¶ 83 (repeating essentially the same sentence as the Petition without further explanation). Further, the section of Shawver (Ex. 1004, 7:31–34) relied on by the Petition does not discuss reservations, but only states that the server is capable of receiving tasks and then assigning those tasks to a workstation. The Petition does not explain why a task assigned to a workstation teaches or suggests a task scheduled according to a reservation.⁶

In view of the above, the Petition fails to identify how Shawver teaches or suggests all of the limitations of independent claims 1 and 14. Further, the Petition fails to identify how Shawver teaches or suggests all of the limitations of the claims that depend from claims 1 and 14.

E. 35 U.S.C. § 103 – Shawver and Nguyen

Petitioner contends that claims 1–5, 14, and 15 of the ’980 patent are unpatentable as obvious over the combined teachings of Shawver and

⁶ In a parallel scenario, some amusement parks let guests make reservations for certain rides so that they can bypass the line of people assigned to that ride. Thus, being in line is not necessarily the same as having a reservation.

Nguyen. Pet. 4–5, 38–54. For the reasons that follow, we are not persuaded that the evidence, including Dr. Wolfe’s testimony, establishes a reasonable likelihood of prevailing on the obviousness ground based on Shawver and Nguyen.

1. Nguyen (Ex. 1006)

Nguyen is titled “Distributed make methods, apparatus, and computer program products.” Ex. 1006, code (54). Nguyen relates to “job distribution methods and systems on plural computing nodes.” *Id.* at 1:25–27.

Nguyen describes “distributed make (*i.e.* ‘dmake’) distribut[ing] jobs derived from analysis of a make file over plural networked computer processing nodes with a job distribution facility.” *Id.* at 4:6–9. “Jobs are remotely processed by remote execution server processes which are created on particular remote data processing nodes, to which one or more jobs are assigned for processing” and “[b]oth remote and local hosts can be selected to process jobs.” *Id.* at 4:20–25.

2. Claims 1–5, 14, 15

As in the prior ground, here the Petition relies on Shawver for teaching “a compute job that is scheduled according to a reservation.” *See* Pet. 46 (“As discussed above, Shawver discloses this limitation or at least renders it obvious.”).

The Petition only relies on Nguyen “in the event Patent Owner argues that Shawver’s ‘registering’ (‘*associating*’) occurs before the ‘tasks’ of the ‘Job’ (‘*compute job*’) are assigned (‘*scheduled*’) to the Workstations 170 (‘*nodes*’) (*i.e.*, that the *compute job* is not ‘*scheduled according to a reservation to consume resources*’ when the ‘*associating*’ happens).” *Id.* at 46–47. Even with the Petition’s reliance on Nguyen, the Petition merely

asserts that Nguyen teaches that the jobs are “assigned to the ‘remote host’ (‘node’)” and does not discuss how Nguyen’s assigning of jobs would meet the limitation of a compute job that is scheduled according to a reservation.

For these reasons, the Petition fails to identify how the combination of Shawver and Nguyen teaches or suggests all of the limitations of the independent claims and their dependents.

F. 35 U.S.C. §§ 102/103 – Nagato

Petitioner contends that claims 1–5, 14, and 15 of the ’980 patent are unpatentable as anticipated by or rendered obvious over Nagato. Pet. 4–5, 55–72. For the reasons that follow, we are not persuaded that the evidence, including Dr. Wolfe’s testimony, establishes a reasonable likelihood of prevailing on the anticipation and obviousness grounds based on Nagato.

1. Nagato (Ex. 1005)

Nagato is titled “Method of Distributing a Spare Time of CPU and System for Performing the Method.” Ex. 1005, code (54). Nagato relates to “distributing or trading (buying and selling) CPU resources, namely, spare times left unused in CPUs which are scattered on a network.” *Id.* ¶ 2. Nagato discusses that “[a]lthough performance of each of these computers is extremely low, it is possible to provide an amazingly high processing ability by summing up the individual performance of each computer.” *Id.* ¶ 8.

Figure 6, reproduced below, shows a block diagram representing a construction of a CPU time distribution system. *Id.* ¶ 28.

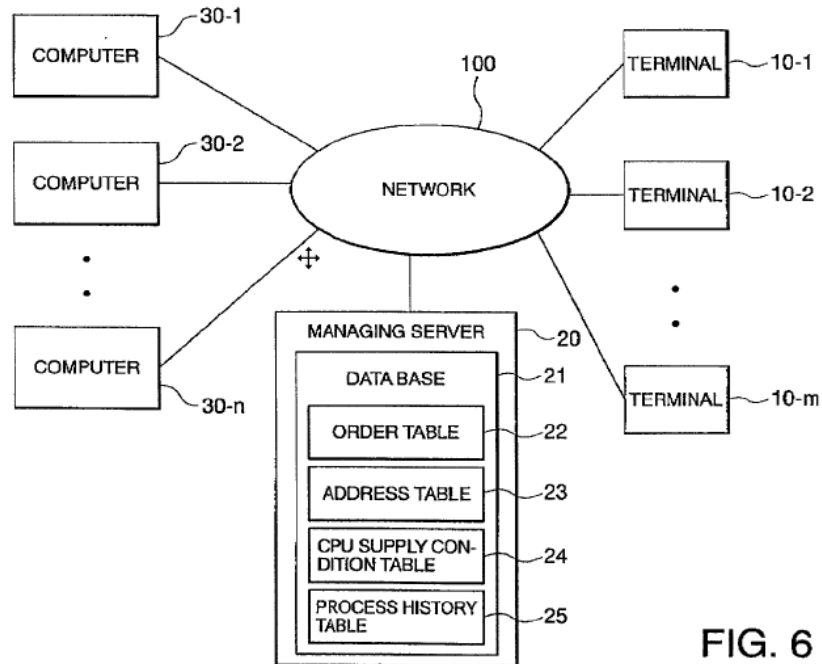


FIG. 6

Figure 6 shows a CPU processing time distribution system, including computers 30-1 through 30-n of the resource suppliers, resource buyer terminals 10-1 through 10-m, and managing server 20. *Id.* ¶¶ 64–78.

Managing Server 20 “manages contents of requests from the resource buyers and execut[es] results of the requests” on “computers 30-1 through 30-n of the resource suppliers” over network 100. *Id.* ¶ 64. Managing Server 20 also receives the results from the resource supplier computer which it sends to the resource buyer terminal. *Id.* ¶ 66.

Nagato’s managing server 20 stores the requests in order table 22, and the network addresses of the resource supplier computers and resource buyer terminals in address table 23. *Id.* ¶¶ 66–67. Managing server 20 stores additional details about the resource supplier computers in CPU supply condition table 24. *Id.* ¶ 68.

Managing server 20 “compares the CPU supply condition defined in the table 24 with an executing (operating) condition of the program to be actually executed.” *Id.* ¶ 75. Managing server 20 then “sends the program to

be executed and a post-processing program to the computer(s)” after the selection. *Id.*

2. *Claims 1–5, 14, 15*

Both of independent claims 1 and 14 require “a compute job that is scheduled according to a reservation.” Claims 2–5 and 15 also include this limitation based on their dependency from either claim 1 or 14. Petitioner argues that the above limitation is taught by Nagato: “Nagato assigns (*schedules [...] a reservation*) the ‘program’ (*compute job*) to be executed by one or more Computers 30 (*nodes*).” Pet. 61.

As with Shawver, Petitioner here also fails to explain how assigning a program to a computer meets the limitations of “a compute job that is scheduled according to a reservation.” *See* Prelim. Resp. 27–28. Thus, the Petition fails to identify how Nagato teaches or suggests all of the limitations of independent claims 1 and 14 and their dependent claims for similar reasons to those laid out with respect to Shawver above.

G. *35 U.S.C. § 103 – Nagato and Tran*

Petitioner contends that claims 1–5, 14, and 15 of the ’980 patent are unpatentable as obvious over the combined teachings of Nagato and Tran. Pet. 4–5, 55–72. As in the prior ground, here the Petition relies on Nagato for teaching “a compute job that is scheduled according to a reservation.” *See* Pet. 78. (“As discussed above, Nagato anticipates or at least renders obvious this limitation.”). The Petition does not rely on Tran for any aspect of this limitation. *Id.*

Thus, the Petition fails to identify how the combination of Nagato and Tran teaches or suggests all of the limitations of the independent claims and their dependents.

III. CONCLUSION

For the reasons discussed above, we determine that Petitioner has not demonstrated a reasonable likelihood of showing at least one of claims 1–5, 14, and 15 of the '980 patent is anticipated or would have been obvious. Thus, we do not institute an *inter partes* review.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is *denied* and that no trial is instituted.

IPR2022-00136
Patent 8,271,980 B2

FOR PETITIONER:

Cono A. Carrano
AKIN GUMP STRAUSS HAUER & FELD LLP
ccarrano@akingump.com

Ashraf Fawzy
Ellyar Barazesh
UNIFIED PATENTS, LLC
afawzy@unifiedpatents.com
ellyar@unifiedpatents.com

For PATENT OWNER:

James Hannah
Jonathan S. Caplan
Jenna Fuller
Jeffrey H. Prices
KRAMER LEVIN NAFTALIS & FRANKEL LLP
jhannah@kramerlevin.com
jcaplan@kramerlevin.com
jfuller@kramerlevin.com
jprice@kramerlevin.com